Title (en)

Process for manufacturing an integrated device with "damascene" field insulation

Title (de)

Herstellungsverfahren für ein integriertes Bauelement mit "damaszener" Feldisolation

Title (fr)

Procédé de fabrication d'un circuit intégré avec isolation de champ de type "damasquinage"

Publication

EP 2306509 A1 20110406 (EN)

Application

EP 10182571 A 20100929

Priority

IT TO20090738 A 20090929

Abstract (en)

An integrated device includes a semiconductor body (11), in which an STI insulation structure (15) is formed, which delimits laterally first active areas (17) and at least one second active area (18), respectively, in a low-voltage region (12) and in a power region (13) of the semiconductor body (11). The integrated device moreover includes low-voltage CMOS components (50, 51), accommodated in the first active areas (17), and a power component (52) in the second active area (18). The power component (52) has a source region (45), a body region (32), a drain-contact region (46), and at least one field-insulating region (27), set between the body region (32) and the drain-contact region (46). The field-insulating region (27) is provided entirely on the semiconductor body (11).

IPC 8 full level

H01L 21/8238 (2006.01); **H01L 21/336** (2006.01); **H01L 27/092** (2006.01); **H01L 29/423** (2006.01); **H01L 29/74** (2006.01)

CPC (source: EP US)

H01L 21/823807 (2013.01 - EP US); **H01L 21/823878** (2013.01 - EP US); **H01L 27/0922** (2013.01 - EP US); **H01L 29/42368** (2013.01 - EP US); **H01L 29/66681** (2013.01 - EP US); **H01L 29/7816** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

EP 2306509 A1 20110406; US 2011073945 A1 20110331; US 8338888 B2 20121225

DOCDB simple family (application)

EP 10182571 A 20100929; US 89321910 A 20100929